

although successful, but at the same times a complicated problem and not solved until fine. The data presented in the literature and our daily activity dictates the need of a deeper examination of patients with tearing, early diagnosis of catarrhal and purulent dacryocystitis as manifested by a cosmetic and functional discomfort in patients' lives. The aim: to study etiopathogenesis and effectiveness of conservative and surgical treatment of lacrimal drainage system pathology and analyzing the results.

**Methods:** It was a retrospective study of 244 patients from the Ophthalmology Department of the Municipal Hospital "Sfanta Treime" during the years 2009-2014

**Results:** The most common diseases remain: punctal stenosis (n=91), chronic dacryocystitis (n=76), dacryoadenitis (n=18), phlegmon of the lacrimal sac (n=59). 116 patients were examined preventive in polyclinic. They represented: punctal stenosis- 62.93%; chronic dacryocystitis- 33.62%; dacryoadenitis- 1.72%; phlegmon of the lacrimal sac- 1.72% cases. In emergency department were examined 111 patients with phlegmon of the lacrimal sac, of which 102 cases have required hospital treatment (91.89%), remaining patients (8.11%) received outpatient treatment. All patients received conservative treatment and/or surgery. Thus, patients treated conservatively were punctal stenosis (37.29%), chronic dacryocystitis (31.14%); dacryoadenitis 97.37%), lacrimal sac phlegmon (24.18%). 205 patients (84.01%) of 244 hospitalized with pathology of lacrimal drainage system required surgical intervention. Thus, punctal stenosis were 86 interventions (35.24%), chronic dacryocystitis- 60 interventions (24.59%), phlegmon of the lacrimal sac - 59 interventions (24.18%).

**Conclusions:** Most of hospitalized patients with the lacrimal tract pathology received surgery treatment. The most frequent intervention was dacryocystorhinostomia (DCR) which represents the standard method in surgery of the lacrimal drainage system pathology. Endonasal dacryocystorhinostomia would be a perfect method of substitution of classic dacryocystorhinostomia because it includes the lack of a skin incision, shorter operating time, minimal blood loss and less risk of cerebrospinal fluid leakage. However, the success rate of 75% in endonasal DCR compared with a success rate of 90 % set in DCR classic favors resolving cases through conventional surgery.

**Keywords:** dacryocystorhinostomia, lacrimal drainage system, endonasal dacryocystorhinostomia

## 205. BASIC PRINCIPLES OF THE ELECTRORETINOGRAPHY AND THE NECESSITY OF ITS CLINICAL IMPLEMENTATION IN THE REPUBLIC OF MOLDOVA

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**Introduction:** The electroretinogram represents an essential tool in evaluation of the functional integrity of the retina. Its usefulness covers a wide variety of pathologies, especially used in preterm infants, in children with unexplained visual loss etc. The purpose of the present review describes the principles of functioning, the application and the clinical significance of the electroretinography (ERG) in ophthalmological practice in the Republic of Moldova.

**Materials and methods:** Bibliographical sources were analyzed also recent retrospective studies that described relevance of ERG for clinical evaluation and vision research.

**Results:** Electroretinography evaluates the functioning of the retina by measuring the retina's response to different light stimuli. ERG is a mainstay of clinical ophthalmic diagnostic testing, frequently being a relevant diagnostic test in pediatric ophthalmology and neurology. The electroretinogram provides an objective, quantitative measure of retinal function and allows the clinician to monitor the function of rod cells, cone cells, and ganglion cells in each eye. ERG can set out the presence or the absence of a global retinal dysfunction, also clearly establishing its importance in the evaluation of pediatric patients with visual dysfunction. The pathologies that give us an unexplained visual loss where ERG is of a highly significance are: Leber congenital disease (LCA), achromatopsia, cone-rod or rod-cone degeneration. The electrophysiological features are: for LCA- a non-recordable or highly attenuated ERG; for achromats- a complete absence of cone response with normal rod-mediated components. The ERG findings do not change with time as children get older. ROP is the leading cause of preventable childhood retinal dysfunction, that's why we decided to pay an especial attention and to include it as a major indication for ERG. ROP has less effect on the cone than on the rod photoresponses. This suggests that cones are more resistant to the ROP disease. The similar shape of the b-wave stimulus-response function in preterms evidences that ROP does not alter the balance of ON and OFF signals in the cone pathway. Information provided by this test in a clinical setting has been used extensively to characterize the retinopathy of prematurity, congenital retinal disease, visual loss with unknown etiology nor clinical association, provided by neuroretinal disease, optics or even a functional visual loss. Nevertheless, the goal of using the ERG is to characterize and diagnose as soon as possible retinal deficits, such therapeutic approach can ensure rapid, targeted and designed to improve the quality of life of both the child and family.

**Conclusion:** Over the years ERG recording techniques have become progressively more sophisticated in clinical practice. With a basic understanding of ERG techniques is now possible a more precise mapping of dysfunctional areas of the retina. This test has a huge value in establishing the presence or absence of global retinal dysfunction in children. The evaluation of the pediatric patients with visual dysfunction represents a diagnostic challenge. For this reason, ERG represents a real value for improving the children's life quality in the Republic of Moldova.

**Keywords:** electroretinography, retina, preterm, unexplained visual loss.

## **206. BIOMECHANICAL PROPRIETIES OF DECELLULARIZED UMBILICAL CORD VESSELS**

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**Introduction:** Each year Cardiovascular Diseases (CVD) are causing over 4 mln deaths in Europe, 47% from total deaths. The high level of deaths caused by vascular pathology and the deficit of